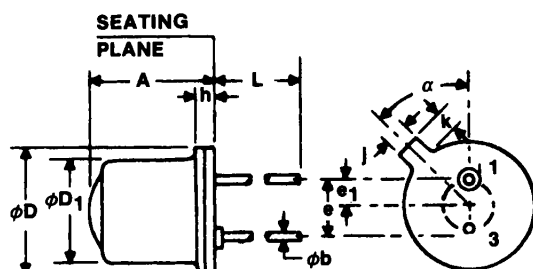


PACKAGE DIMENSIONS



ST1332

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A		.255		6.47	
ϕb	.016	.021	.407	.533	
ϕD	.209	.230	5.31	5.84	
ϕD1	.180	.188	4.57	4.77	
e	.100	NOM.	2.54	NOM.	2
e1	.050	NOM.	1.27	NOM.	2
h		.030		.76	
j	.031	.044	.79	1.11	
k	.036	.046	.92	1.16	1
L	1.00		25.4		
α	45°	45°	45°	45°	3

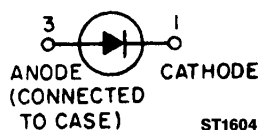
DESCRIPTION

The 1N6264 is a 940nm LED in a narrow angle, T0-46 package.

FEATURES

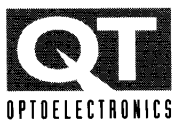
- Good optical to mechanical alignment
- Mechanically and wavelength matched to TO-18 series phototransistor
- Hermetically sealed package
- High irradiance level
- (*) indicates JEDEC registered values

PACKAGE OUTLINE



NOTES:

1. MEASURED FROM MAXIMUM DIAMETER OF DEVICE.
2. LEADS HAVING MAX. DIAMETER .021" (.533mm) MEASURED IN GAUGING PLANE .054" + .001" - .000 (137 + 025 - 000mm) BELOW THE REFERENCE PLANE OF THE DEVICE SHALL BE WITHIN .007" (.778mm) THEIR TRUE POSITION RELATIVE TO A MAXIMUM WIDTH TAB.
3. FROM CENTERLINE TAB.



GaAs INFRARED EMITTING DIODE

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)

*Storage Temperature	—	-65°C to $+150^\circ\text{C}$
Operating Temperature	—	-65°C to $+125^\circ\text{C}$
*Soldering:		
*Lead Temperature (Iron)		240°C for 5 sec. ^(3,4,5,6)
*Lead Temperature (Flow)		260°C for 10 sec. ^(3,4,6)
*Continuous Forward Current		100 mA
*Forward Current (pw, $1\mu\text{S}$; 200 Hz)		10 A
*Reverse Voltage		3 Volts
*Power Dissipation ($T_A = 25^\circ\text{C}$)		170 mW ⁽¹⁾
Power Dissipation ($T_C = 25^\circ\text{C}$)		1.3 W ⁽²⁾

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified) (All measurements made under pulse conditions.)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
*Forward Voltage	V_F	—		1.7	V	$I_F = 100\text{ mA}$
*Reverse Leakage Current	I_R	—		10	μA	$V_R = 3\text{ V}$
*Peak Emission Wavelength	λ_p	935		955	nm	$I_F = 100\text{ mA}$
Emission Angle at $\frac{1}{2}$ Power	θ		± 8		Degrees	
*Total Power	P_o	6		—	mW	$I_F = 100\text{ mA}^{(7)}$
Rise Time 0-90% of output	t_r		1.0		μS	
Fall Time 100-10% of output	t_f		1.0		μS	

NOTES

1. Derate power dissipation linearly $1.70\text{ mW}/^\circ\text{C}$ above 25°C ambient.
2. Derate power dissipation linearly $13.0\text{ mW}/^\circ\text{C}$ above 25°C case.
3. RMA flux is recommended.
4. Methanol or Isopropanol alcohols are recommended as cleaning agents.
5. Soldering iron tip $\frac{1}{16}"$ (1.6 mm) minimum from housing.
6. As long as leads are not under any stress or spring tension.
7. Total power output, P_o , is the total power radiated by the device into a solid angle of 2π steradians.

TYPICAL CHARACTERISTICS

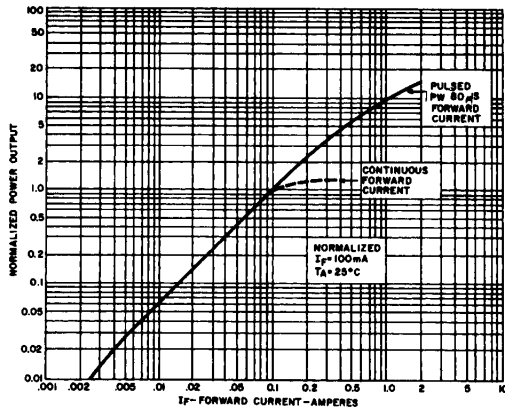


Fig. 1. Power Output vs. Input Current ST1002

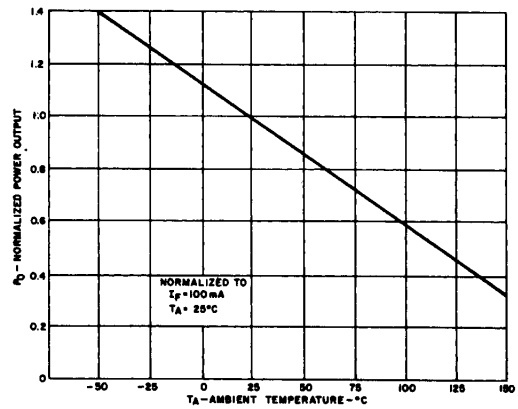


Fig. 2. Power Output vs. Temperature ST1007

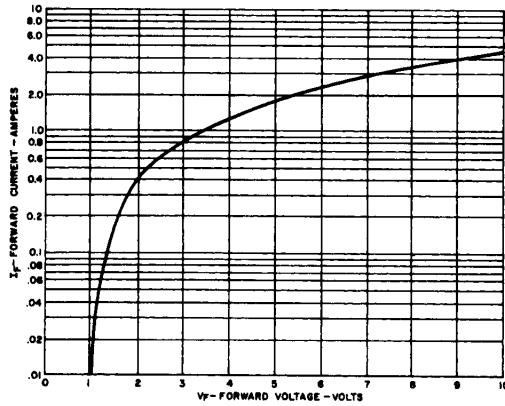


Fig. 3. Forward Voltage vs. Forward Current ST1003

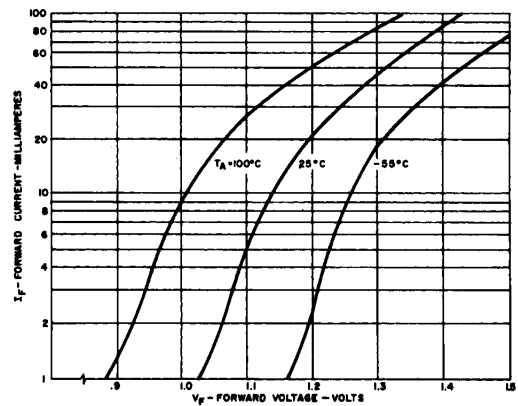


Fig. 4. Forward Voltage vs. Forward Current ST1006

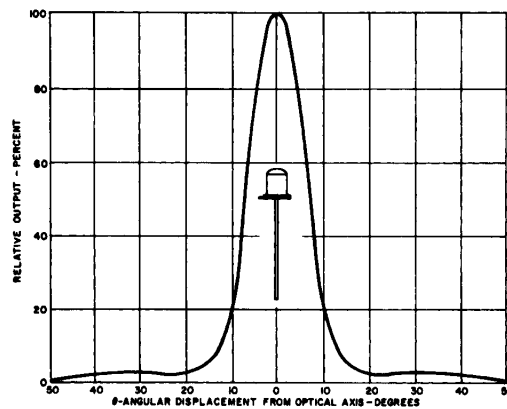


Fig. 5. 1N6264 — Typical Radiation Pattern ST1004